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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/318,460	05/25/1999	MARK O. VOGEL	99.089	1443

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MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP  
300 S. WACKER DRIVE  
32ND FLOOR  
CHICAGO, IL 60606

EXAMINER
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JAGANNATHAN, MELANIE

ART UNIT	PAPER NUMBER
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2666

23

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/318,460

Applicant(s)

VOGEL, MARK O.

Examiner

Melanie Jagannathan

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 May 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-17 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 10, 11 and 18-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08).  
Paper No(s)/Mail Date 2-9, 11-12, 14-22.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2,5-6, 12-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al. US 5,943,604.

Regarding claims 1-2,5,12-17, 23-26,the claimed data-over-cable system with method for optimizing data throughput on an upstream channel at a target packet error ratio by ascertaining signal-to-noise ratio, determining parameters for data transmissions and negotiating use of determined parameters is disclosed by cable system where test data packets are transmitted and packet checker (Figure 3, element 306) accumulates error statistics such as bit error rates and packet error statistics and claimed parameters are disclosed by forward error correction coding and block statistics and quadrature amplitude modulation technique. See columns 4-5, column 9, lines 25-42, column 10, lines 21-67 and column 11.

Regarding claims 6,23, the claimed scheduling of a plurality of quiescent periods on the upstream channel wherein no data is transmitted and measuring a noise floor value during one of these periods and converting measured noise floor value to signal-to-noise ratio is disclosed by check of noise level in cable system during wait state and if there is too much noise then it is determined the signal-to-noise ratio is below an acceptable amount. See column 10, lines 21-48.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. Chen discloses all of the limitations of the claim except averaging the measured noise floor values to obtain an average noise floor value. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify Chen et al. to obtain an average noise floor value. One of ordinary skill in the art would be motivated to do this to in order eliminate transmission errors on channel for improved communication.

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5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. in view of Gorman et al. US 6,137,793. Chen et al. discloses all of the limitations except for the claimed target packet error ratio selected by user. Gorman et al. disclose quality of service parameters including cell lost ratio is specified by user. See column 10, lines 33-42. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify Chen with user specified cell lost ratio of Gorman et al. One of ordinary skill in the art would be motivated to do so support quality of service needs of subscriber system on a user demand basis. See column 6, lines 37-40.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. in view of Hunt et al. US 5,400,322. Chen et al. discloses all of the limitations of the claims except for ascertaining payload size and reading parameters for data transmission on upstream channel from table, wherein parameters are associated with signal-to-noise ratio, target packet error ratio and payload size. Hunt et al. disclose bit of input data for transmission with in each block or symbol period are allocated to subchannels in a manner dependent on signal-to-noise ratios of the subchannels so bit error rates of subchannels are substantially equal and the microprocessor control units (Figure 3, elements 36,48) include a bit and energy table (element 40) and bit table (element 52). See columns 1-4. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify Chen et al. with reading parameters for data transmission from table. One of ordinary skill in the art would be motivated to do this for improved data transmission.

***Allowable Subject Matter***

7. Claims 10-11,18-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eldering US 6,321,384 discloses noise reduction in cable return paths.

Bowcutt et al. US 6,308,328 disclose usage statistics collection for a cable delivery system.

Eldering et al. US 5,881,362 disclose method of ingress noise reduction in cable return paths.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Melanie Jagannathan  
Patent Examiner  
AU 2666

MJ

*ms*

*Paul Dwyer*  
*FRANC DWOY*